MITSUBISHI MOTOR SALES OF AMERICA, Inc.

# SERVICE RECALL BULLETIN

SUBJECT:

## RECALL - THROTTLE HEATER KIT INSTALLATION ON 1989 MONTEROS WITH V6 ENGINE

NO. TSB-89-14-001

DATE March, 1989

MODEL 1989 Montero V6

R 89V-030

### DESCRIPTION

Mitsubishi Motor Sales Of America, Inc. (MMSA) has determined that certain 1989 Montero vehicles with V6 engines may experience throttle valve icing when operated in ambient temperatures colder than 10 degrees Fahrenheit. Throttle valve icing is caused by the proximity of the EGR port to the throttle blade, allowing moisture normally present in exhaust gases to condense and freeze on or around the throttle blade in extremely cold climates. In more severe cases throttle valve icing may result in a stuck throttle, or failure of the throttle to return to idle position.

As a temporary measure in the interest of customer safety, an Advanced Technical Information Notice (ATIN) was sent to all Mitsubishi Motors Dealers on February 1. This notice instructed the Dealer to disconnect and plug the vacuum hose going to the EGR valve, thus rendering inoperative the EGR system and eliminating the introduction of moisture to the throttle valve as a temporary measure. IT IS NO LONGER NECESSARY TO DISCONNECT AND PLUG THE EGR VACUUM HOSE. This was a temporary measure taken in the interest of customer safety. IT IS NO LONGER ACCEPTABLE TO DELIVER VEHICLES TO CUSTOMERS WITH THE EGR VALVE DISCONNECTED. The EGR system must be restored to operating condition if disconnected and the throttle heater kit described below must be installed at the same time.

### CORRECTION

To correct this condition and ensure that the 1989 V6 Montero meets all relevant FMVSS requirements, MMSA has announced a voluntary recall campaign to install a throttle valve heat adaptor between the throttle valve assembly and the intake plenum. This will raise the temperature of the throttle valve assembly to counteract the freezing of moisture, and so that EGR moisture cannot condense on the throttle assembly.

### VEHICLES AFFECTED

All 1989 V6 engine equipped Monteros manufactured before February 2, 1989.

THE CORRECTIVE PROCEDURE MUST BE FOLLOWED FOR VEHICLES IN DEALER STOCK AS WELL AS ANY RETURNED UNDER THE VOLUNTARY RECALL CAMPAIGN.

### FURTHER INFORMATION

For any further information about any aspect of the installation procedure or recall campaign call your regional TECH LINE:

800-631-7092 (Outside New Jersey)
800-624-3354 (Within New Jersey)
800-826-7190 (Outside California)
800-826-8445 (Within California)

Continued...

NHTSA Recall #89V030

014398

FILE UNDER: the Recall section of the Service Information Bulletin binder. (645)

CIRCULATE TO:

- ☑ GENERAL MANAGER
- ☑ PARTS MANAGER
- ☑ TECHNICIAN
- ☑ SERVICE ADVISOR
- ☑ SERVICE MANAGER
- ☑ WARRANTY PROCESSOR
- ☑ SALES MANAGER

## DEALER ACTION

1. Mitsubishi Motors dealers must reactivate the EGR system and install the throttle heater kit on the engine of each affected vehicle.

2. The reactivation of the EGR system and installation of the throttle heater kit shall be performed on a **no-charge** basis for parts and labor to the customer.

3. A Recall Claim type "C" must be submitted for each affected vehicle to receive reimbursement for the parts and labor costs related to the reactivation of the EGR system and installation of the throttle heater kit.

   Only the throttle heater kit installation and if needed, a length of vacuum hose may be claimed on a recall claim. Any other warrantable repairs must be submitted on a separate warranty claim (entry option "E- 2") and are subject to normal warranty policies.

   Recall claims should be submitted over the Diamond Network Warranty System using warranty menu option "**E-5 Recall Claims**". A sample direct entry claim is shown on page **14** of this bulletin.

   If the Diamond Network Warranty System is not yet available to your dealership, you may submit a paper recall claim form (MSSF-105D-00) to the MMSA Warranty Department. A sample paper recall claim form is also provided on page **15** of this bulletin.

## CUSTOMER NOTIFICATION

MMSA will notify each owner of the affected vehicle by letter during March, 1989; a copy of this letter is shown on page **16** of this bulletin.

## WARRANTY INFORMATION

The **Recall Operation Code**, time allowances and parts information for EGR reactivation and throttle heater kit installation are shown below. Warranty information for other services performed (timing adjustment, etc.) should be obtained from the MMC Labor Operation Time Schedule book.

Operation Code: C8901J00

Time Allowance: With Cruise Control - 0.7 hour
Without Cruise Control - 0.6 hour

Required Kit Part Number: MD153588 - Throttle Heater Kit
Dealer Net Part Price: $7.87

Vacuum Hose Part Number: NPN
Vacuum Hose Allowance: $ .80

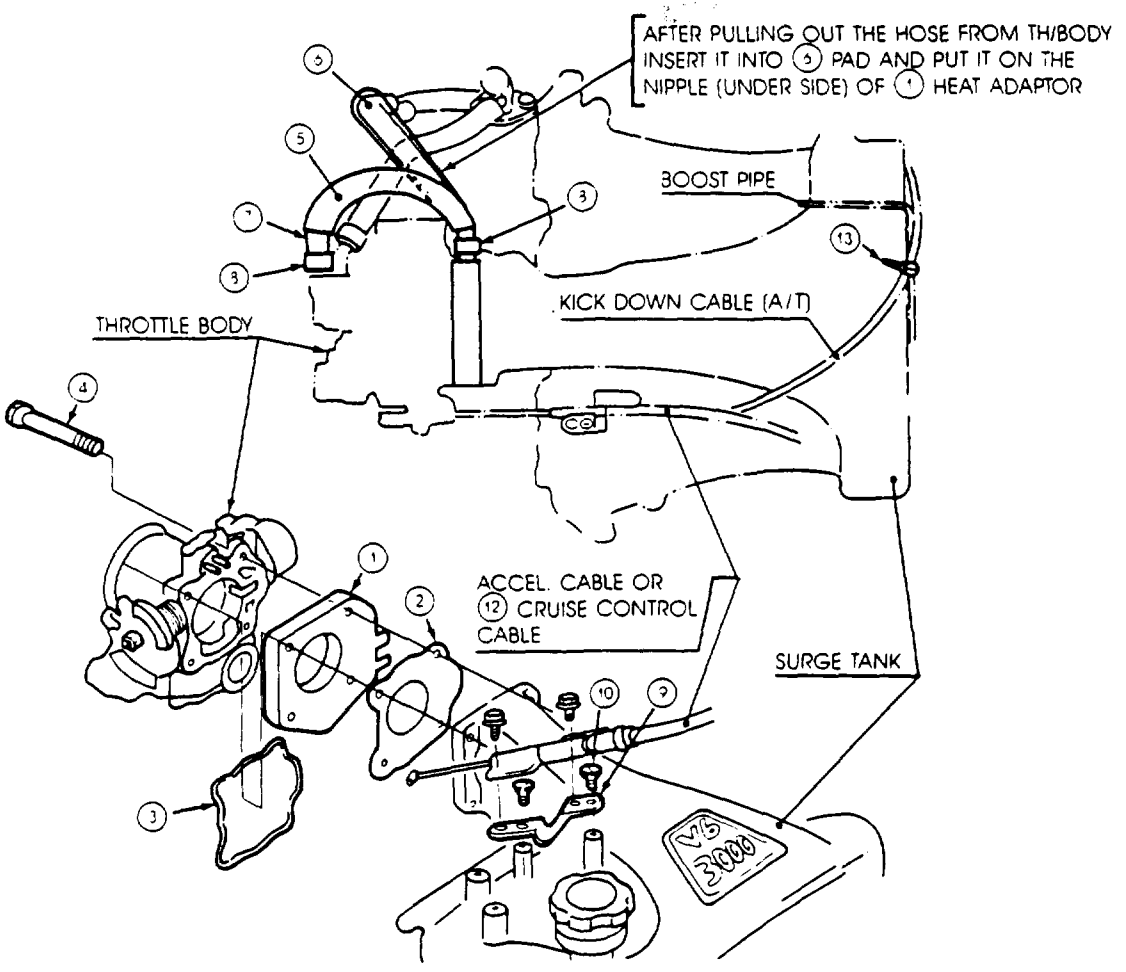
## PARTS AVAILABILITY INFORMATION

An initial shipment of parts will be forwarded to you at the time of the recall launch with a second shipment to follow shortly thereafter. Many dealers will be receiving enough parts in the first two shipments to repair all vehicles in their market. These dealers will not need to place additional orders. Dealers needing additional parts should note that until the second allocation of parts is shipped, the parts will NOT be available for ordering. Any orders received before the second shipment will be automatically cancelled.

**Continued...**

# THROTTLE HEATER KIT (MD153588)




AFTER PULLING OUT THE HOSE FROM TH/BODY INSERT IT INTO ⑤ PAD AND PUT IT ON THE NIPPLE (UNDER SIDE) OF ① HEAT ADAPTOR
BOOST PIPE
KICK DOWN CABLE (A/T)
THROTTLE BODY
ACCEL. CABLE OR ⑫ CRUISE CONTROL CABLE
SURGE TANK

## PARTS IN THE KIT

| SYM | PART NAME | PART NO. | QTY. | REMARKS |
|---|---|---|---|---|
| ① | ADAPTOR ASSY, HEAT | MD153547 | 1 | ASSEMBLED WITH ③ O-RING, ADAPTOR |
| ② | GASKET, THROTTLE BODY | MD136444 | 1 | |
| ③ | O-RING, ADAPTOR | — | 1 | A PART OF ① ADAPTOR ASSY, HEAT |
| ④ | BOLT W/WASHER (8x70) | MF240067 | 4 | |
| ⑤ | PAD (L=185) | — | 1 | A PART OF ⑦ HOSE ASSY, WATER |
| ⑥ | PAD (L=130) | MD153549 | 1 | |
| ⑦ | HOSE ASSY, WATER | MD153548 | 1 | ASSEMBLED WITH ⑤ PAD AND ⑧ HOSE, CLAMP |
| ⑧ | HOSE, CLAMP | MS660242 | 2 | A PART OF ⑦ WATER ASSY HOSE |
| ⑨ | ADAPTOR, ACCEL CABLE BRKT | MD153550 | 1 | |
| ⑩ | SCREW, MACHINE (6x16) | MF201572 | 2 | |
| ⑫ | CABLE ASSY CRUISE CONTROL | MB686380 | 1 | NO USE WITHOUT AUTO CRUISE CONTROL |
| ⑬ | BAND | MB249338 | 1 | NO USE WITHOUT A/T |

# THROTTLE HEATER KIT INSTALLATION ON MONTEROS WITH V6 ENGINE

**Part Description:** Throttle Heater Kit
**Part Number:** MD153588

## INSTALLATION PROCEDURE

**Read these instructions and be familiar with the entire procedure before beginning installation.**

*Note:* Instructions for the control cables vary:

> If the vehicle has an automatic transmission, you will have to readjust the kickdown cable.

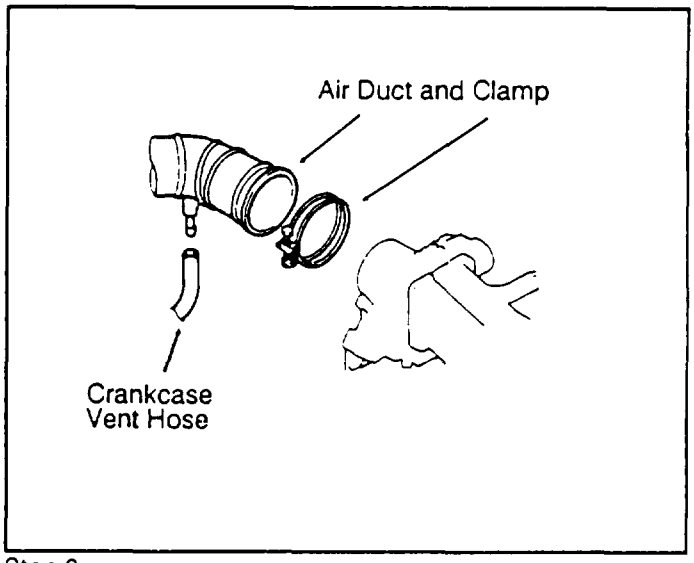
> If the vehicle has Automatic Cruise Control System (ACS), You will have to replace the ACS cable assembly between the ACS actuator and the throttle.

*Note:* New parts are keyed to parts list. Examples: #4 - throttle body bolts, #1 - heat adaptor.

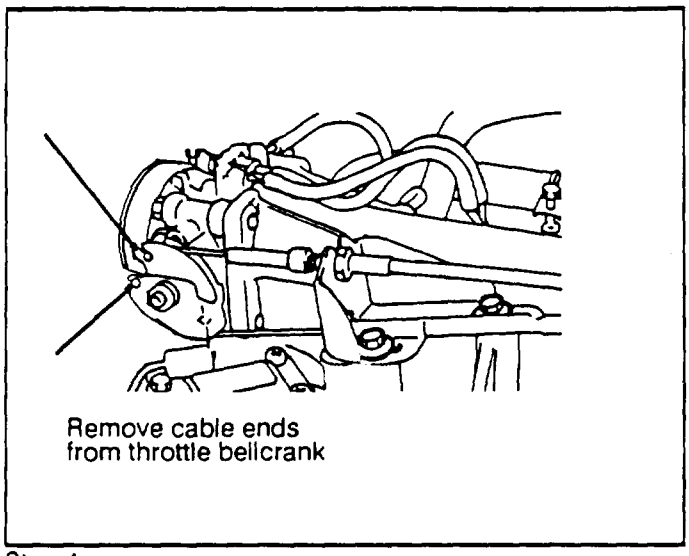
1. Reactivate the EGR system by removing the temporary plugs and reconnecting the EGR vacuum hose. If the EGR system has been disconnected by cutting and plugging the EGR vacuum hose, replace the hose with a new piece of vacuum hose

2. Disconnect the battery (-) terminal.

3. Loosen the air duct clamp on the throttle assembly and pull off the crankcase vent hose from the bottom of the air duct. Pull the air duct off of the throttle assembly.

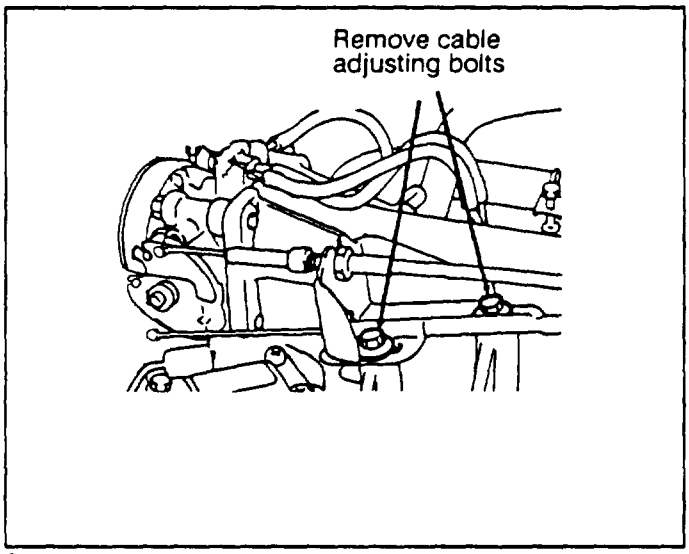


Step 3



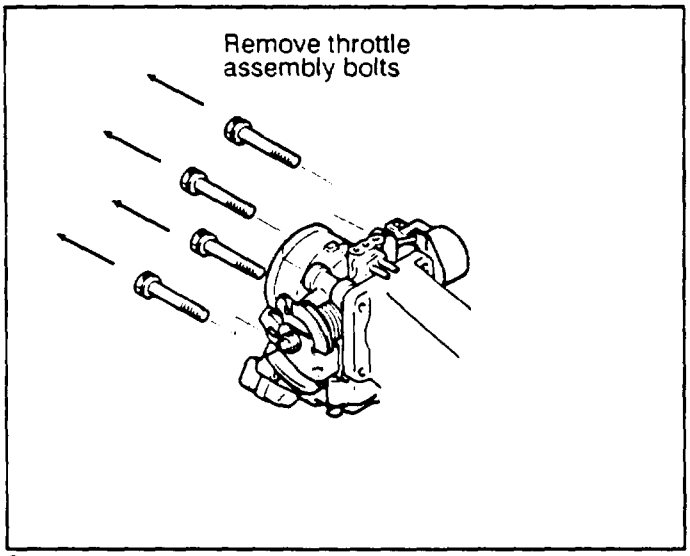

Step 4

4. Disconnect the control cable(s) from the throttle assembly bellcrank.




Step 5

5. Remove the two 10mm bolts holding the cable(s) to the surge tank and move cable(s) away from the throttle assembly.

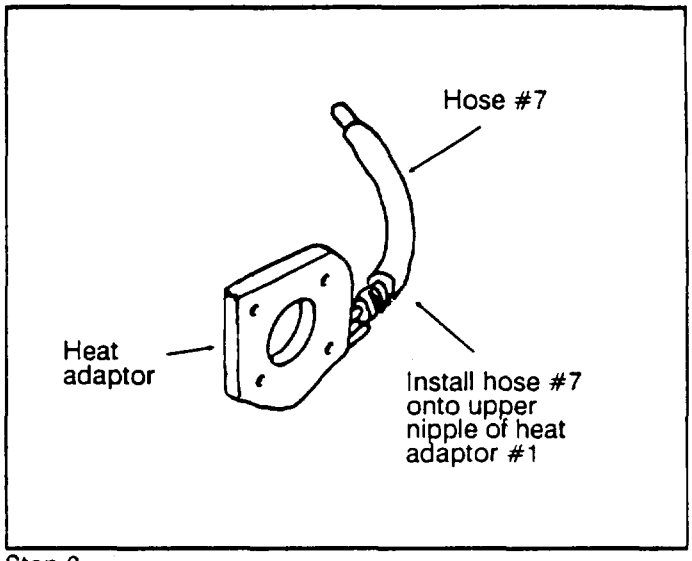



Step 6

6. Remove and discard the four bolts that hold the throttle assembly to the surge tank. A light tap with a plastic mallet on the end of the throttle assembly will break it loose from the surge tank. Do not disconnect the water hoses yet.

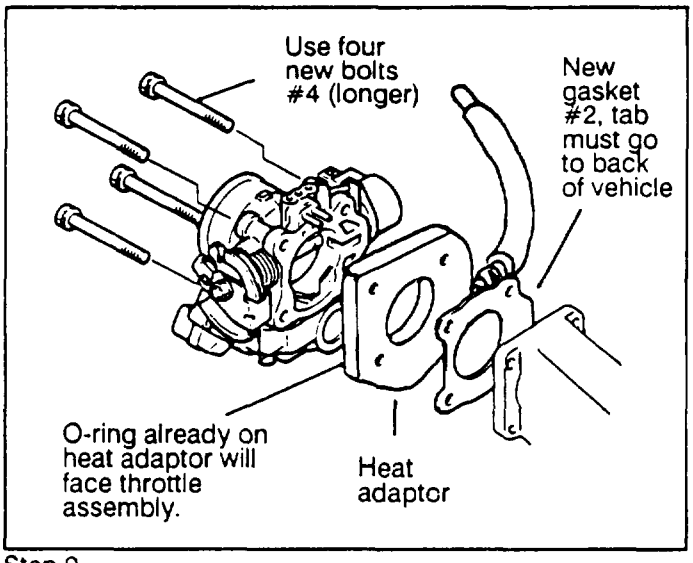
7. Remove and discard the old gasket. Use a scraper to remove any traces of the old gasket from the two surfaces.

8. Install water hose #7 on the upper nipple of the heat adaptor.



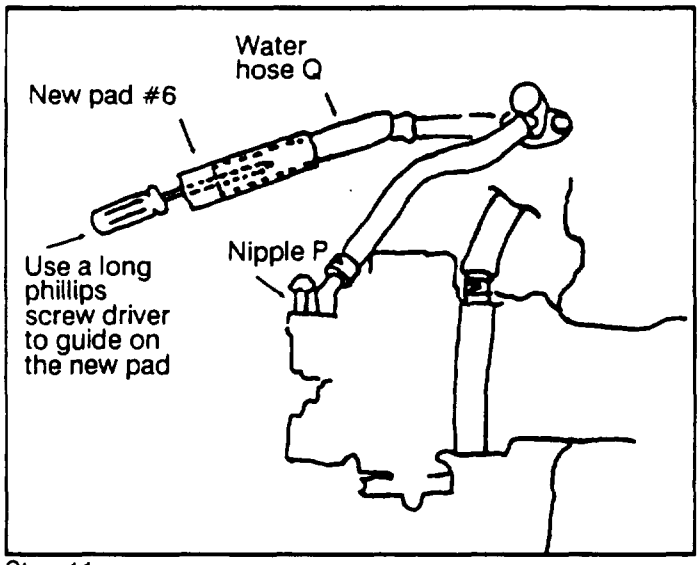

Step 8

9. Install the heat adaptor so that the rubber O-ring (already installed on heat adaptor) contacts the throttle assembly, and use new gasket #2 next to the surge tank. The large tab on the gasket must point towards the back. Use new longer bolts #4 to attach throttle assembly and heat adaptor to surge tank. Torque to 8 ft.lbs. + - 1.


Use four new bolts #4 (longer)
New gasket #2, tab must go to back of vehicle
O-ring already on heat adaptor will face throttle assembly.
Heat adaptor

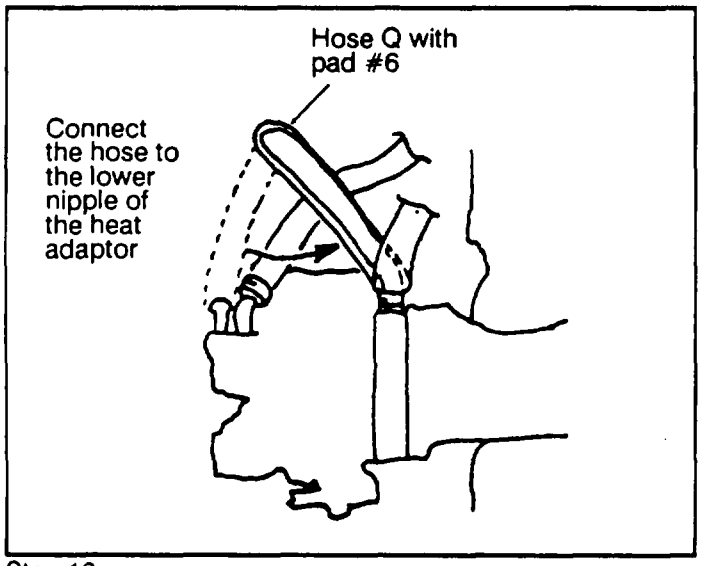
Step 9

10. Loosen the radiator cap one notch to relieve any cooling system pressure, then tighten cap.



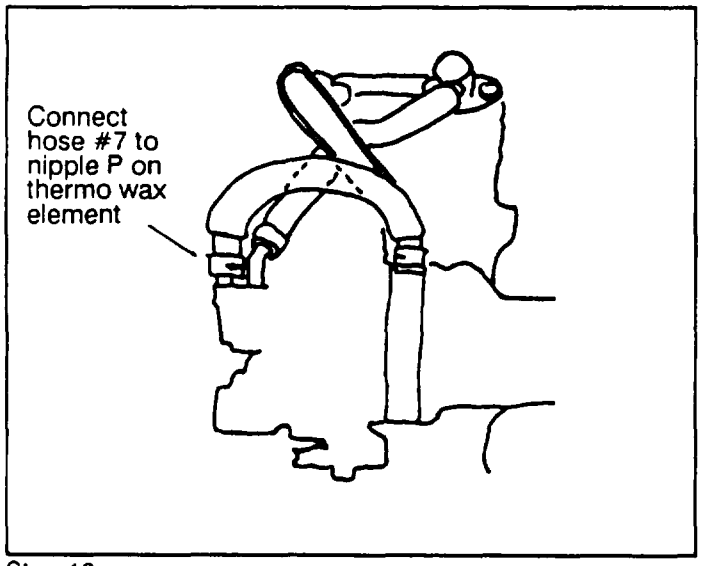

Step 11

11. Remove water hose Q from nipple P of the throttle body and slide on pad #6. *Note*: Water hose Q is a molded hose. You can install the hose pad onto hose Q easier if you slide the pad onto a long Phillips head screwdriver, push the screwdriver down into the hose to temporarily straighten it, then slide the pad over the hose.




Step 12

12. Connect water hose Q to the lower nipple of the heat adaptor.

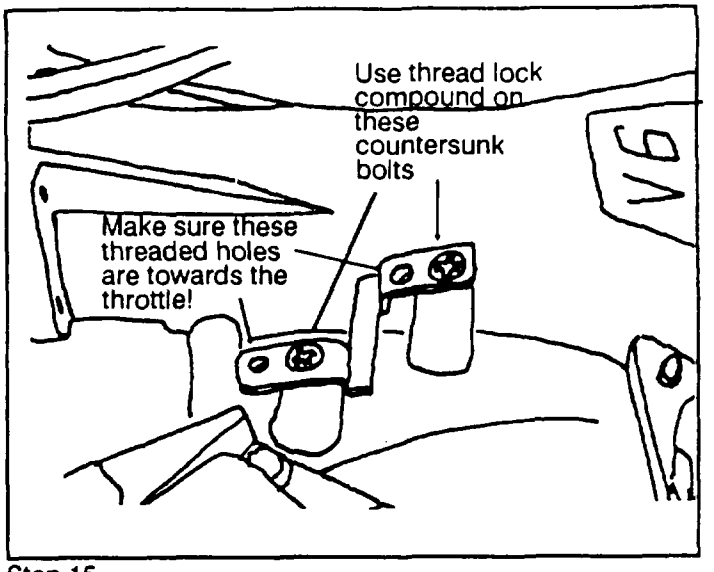



Step 13

13. Temporarily connect water hose #7 to the open nipple on the thermo wax element (do not slide the clamp into place yet).

14. Reinstall the air duct. Make sure you reconnect the crankcase breather hose (reverse of step 3).

15. Install the accelerator cable adaptor bracket #9 to the surge tank using the countersunk-head bolts #10. Make sure the direction is correct. **The threaded holes should be located towards the throttle**. Use thread lock compound on the threads of the bolts and torque to 4 to 6 ft.lbs.

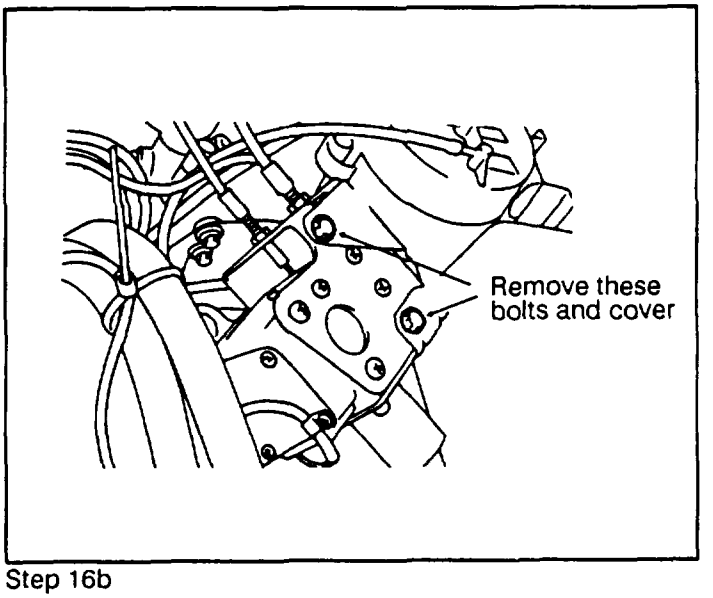


Step 15

16. Installing control cables for vehicles **with Auto Cruise Control System (ACS).**
(proceed to step 17 for vehicles without ACS)

**16a**. Disconnect the radiator coolant reservoir overflow tube, pull up on the reservoir and swing it out of the way.

**16b**. Remove the side cover from the ACS actuator (2 bolts - 10mm).

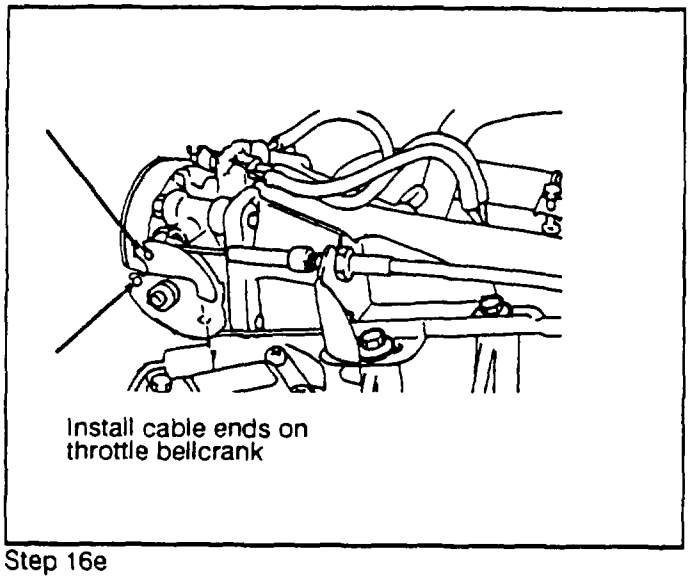


Step 16b

**16c**. Detach and discard the ACS cable assembly that goes to the throttle from the ACS actuator.

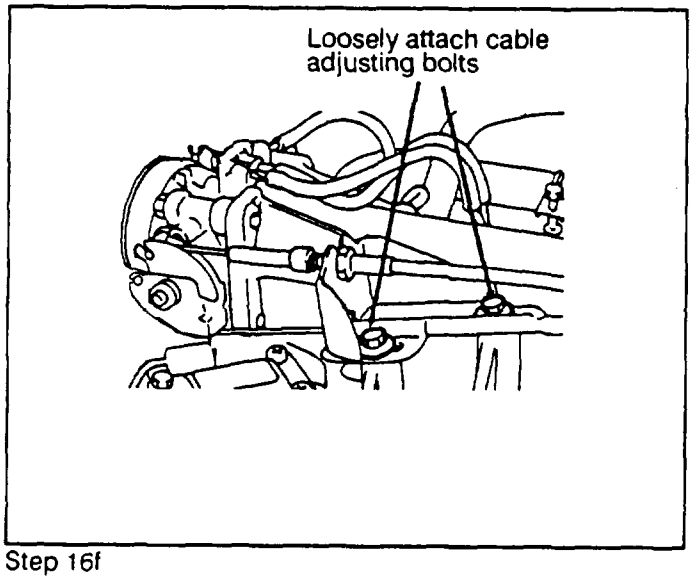
**16d**. Loosely install the new ACS cable #12 to the ACS actuator.

(See parts description.)



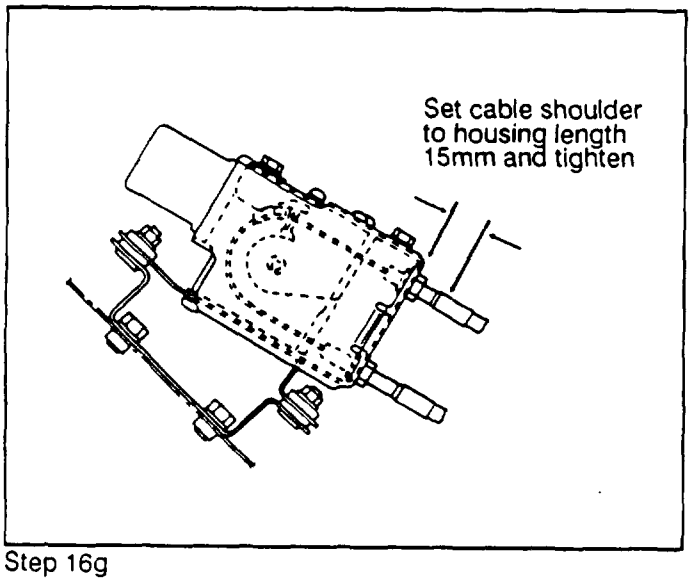

Step 16e

**16e.** Attach the ACS cable end (and kickdown cable on auto trans. equipped vehicles) to the throttle bellcrank.




Step 16f

**16f.** Loosely attach the ACS cable assembly (and kickdown cable if equipped) to the adaptor bracket.

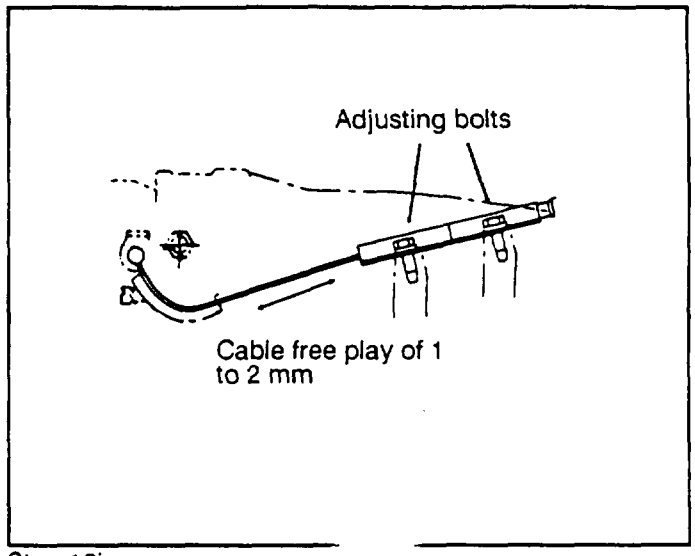



Step 16g

**16g.** Go back to the ACS actuator and set the cable shoulder to actuator length at 15mm and tighten cable bolts. An easy way to measure is to use a 15mm open end wrench opening as a guide.

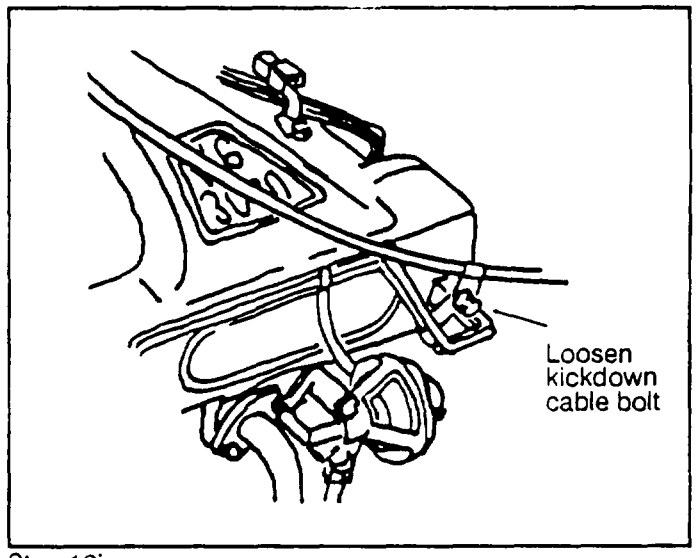
**16h.** Reinstall the side cover, reinstall the coolant reservoir and overflow tube.

**16i.** Adjust the ACS cable free play: 1-2 mm and tighten bolts.




Step 16i

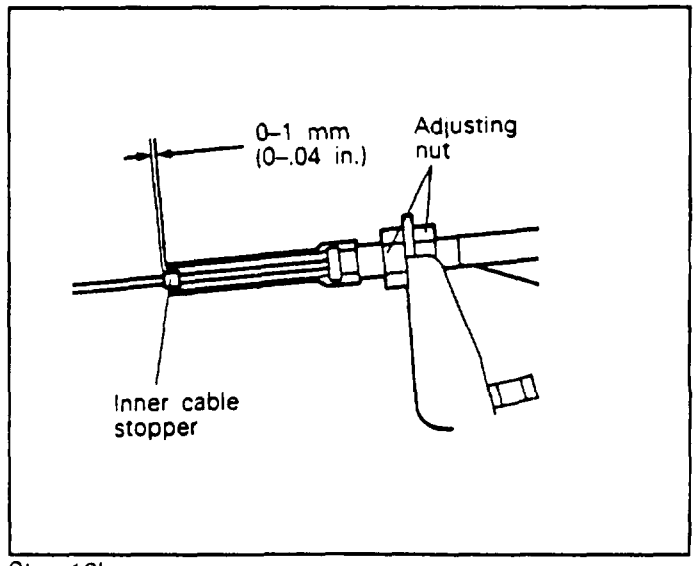
**16j.** If equipped with automatic transmission, loosen the bolt holding the kickdown cable next to the EGR valve.




Step 16j

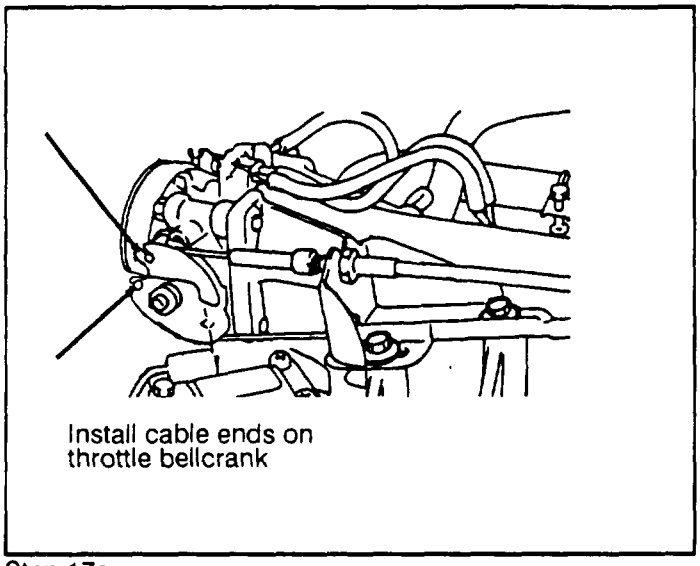
**16k.** Adjust kickdown cable so that the inner cable stopper comes to the end of the dust cover at wide open throttle. Cable clamp protrusion at wide open throttle: 0-1 mm. Tighten bolt next to EGR valve.

Proceed to step 18.



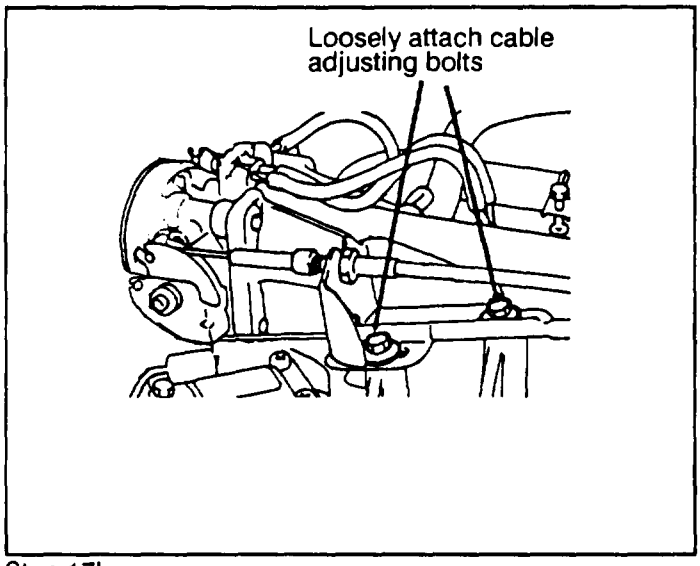

Step 16k

17. Installing control cables for vehicles **without ACS**



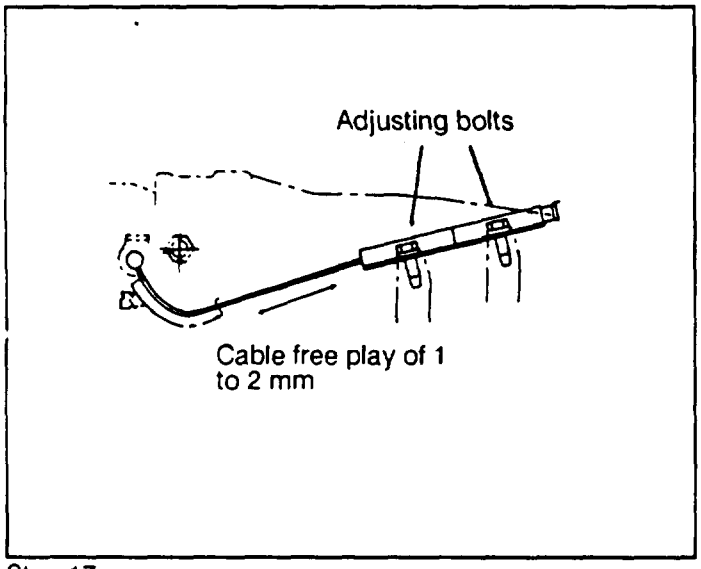

Step 17a

**17a.** Attach the accelerator cable end (and kickdown cable on auto trans. equipped vehicles) to the throttle bellcrank.




Step 17b

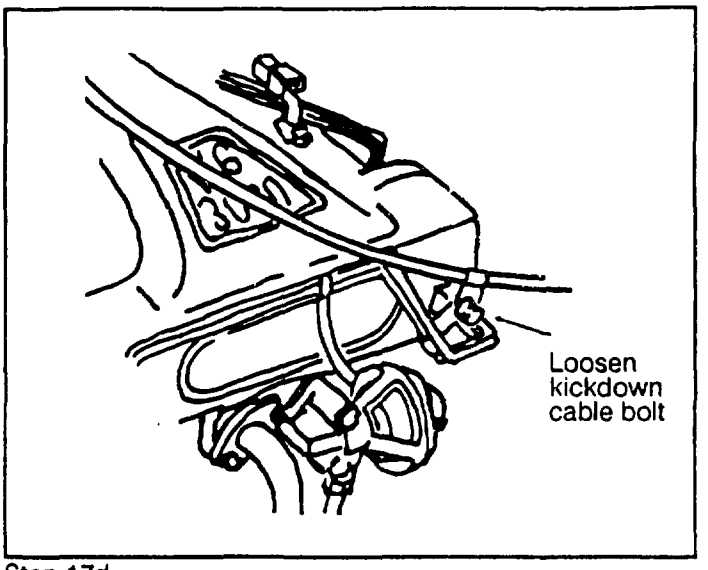
**17b.** Loosely attach the accelerator cable assembly (and kickdown cable if equipped) to the adaptor bracket.




Step 17c

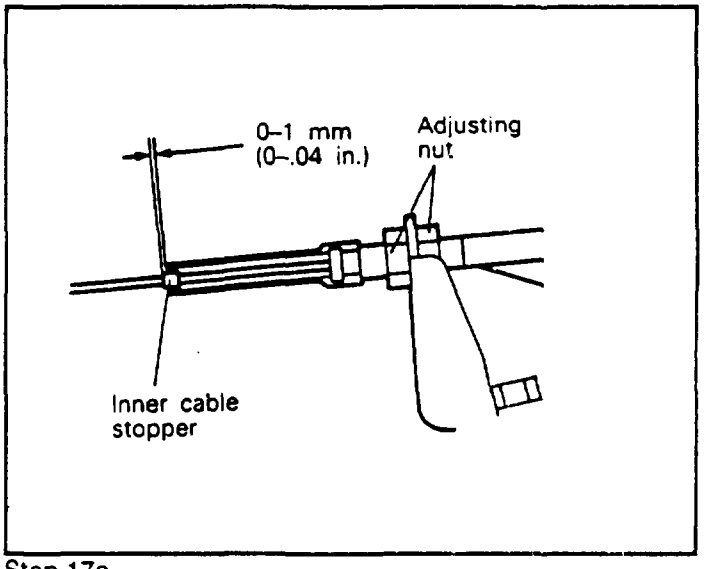
**17c.** Adjust the accelerator cable free play: 1-2 mm and tighten bolts.

17d. If equipped with automatic transmission, loosen the bolt holding the kickdown cable next to the EGR valve.




Step 17d

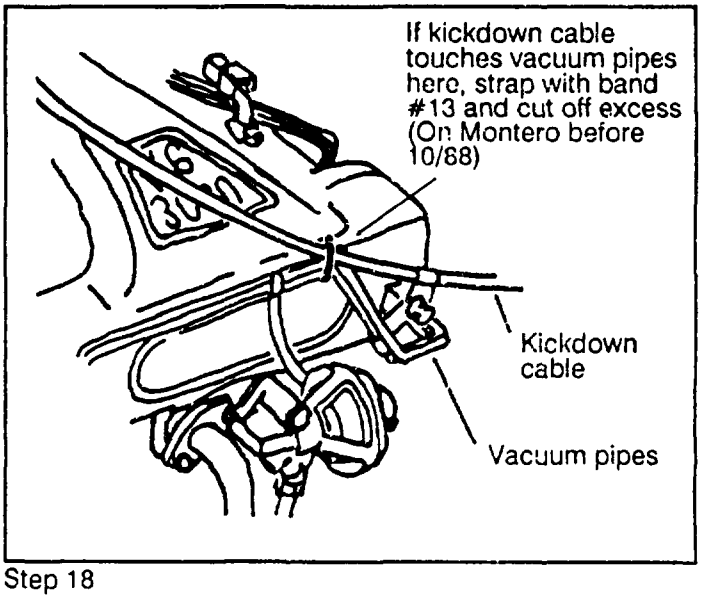
17e. Adjust kickdown cable so that the inner cable stopper comes to the end of the dust cover at wide open throttle. Cable clamp protrusion at wide open throttle: 0-1 mm. Tighten bolt next to EGR valve.




Step 17e

18. For automatic transmission equipped vehicles built before October.1988*, if the kickdown cable rests against the vacuum pipes at the driver's side of the surge tank, strap the cable to the vacuum pipes with the supplied band #13. Cut off the excess part of the band.

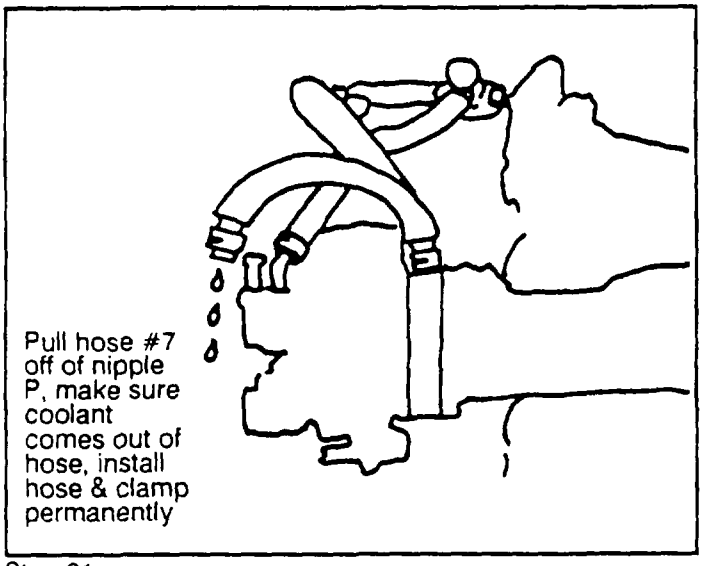
*Which can be determined by opening the left front door and looking at the date on the FMVSS plate on the "B" pillar.




Step 18

19. Connect the battery (-) terminal.

20. Run the engine for a couple of minutes to circulate coolant, then shut the engine off.



Step 21

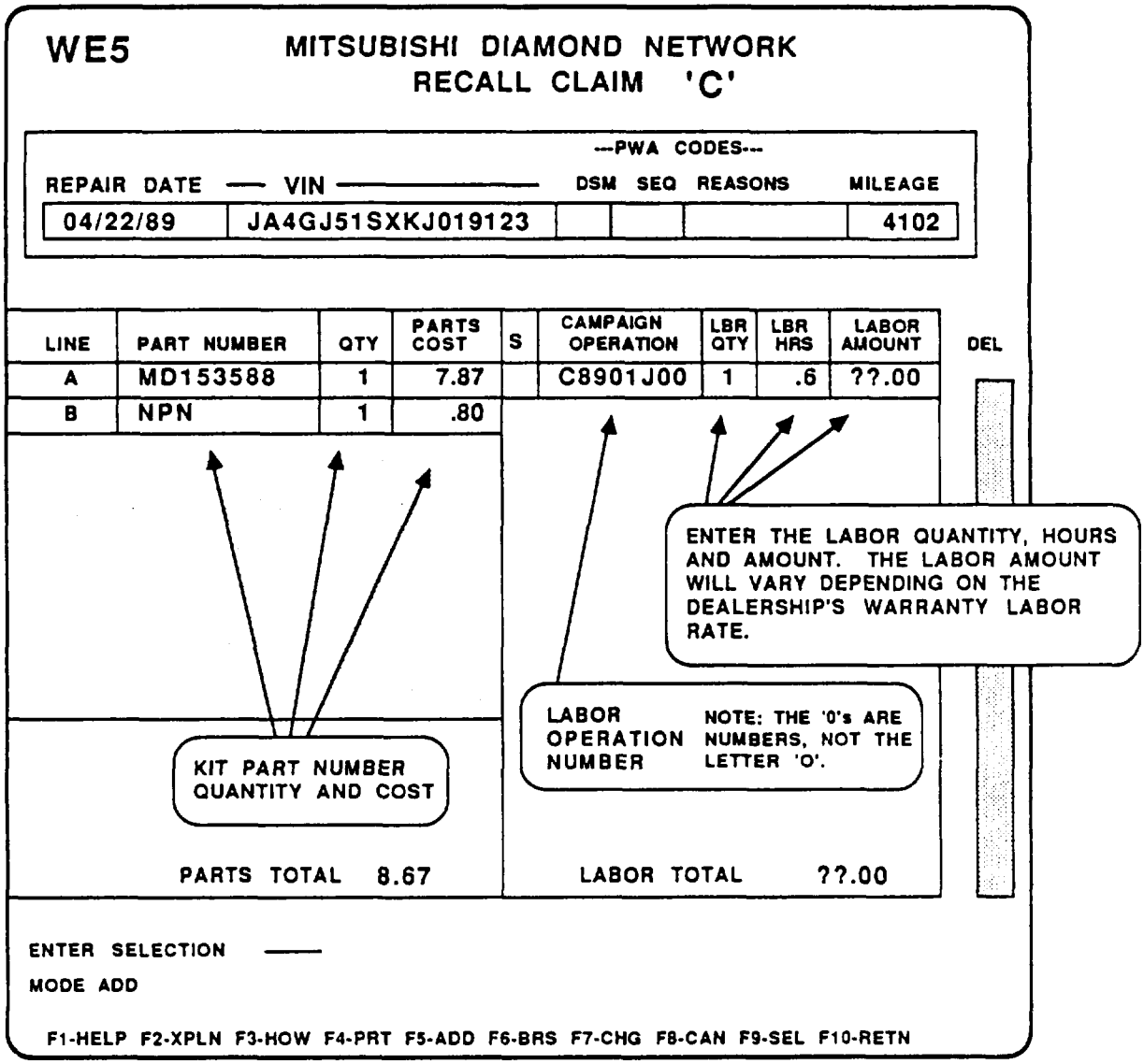
21. Remove the radiator cap completely and air bleed the heater adaptor by pulling off water hose #7 from the thermo wax element. Water flow from the hose indicates the air bleeding is finished.

22. Reconnect and clamp hose #7 permanently.

23. Tighten the radiator cap.

24. Clean up any spilled coolant and debris.

# SAMPLE DIRECT ENTRY RECALL CLAIM-BODY SECTION


WE5
MITSUBISHI DIAMOND NETWORK
RECALL CLAIM 'C'
---PWA CODES---
REPAIR DATE — VIN — DSM SEQ REASONS MILEAGE
04/22/89 JA4GJ51SXKJ019123 4102
LINE PART NUMBER QTY PARTS COST S CAMPAIGN OPERATION LBR QTY LBR HRS LABOR AMOUNT DEL
A MD153588 1 7.87 C8901J00 1 .6 ??.00
B NPN 1 .80
ENTER THE LABOR QUANTITY, HOURS AND AMOUNT. THE LABOR AMOUNT WILL VARY DEPENDING ON THE DEALERSHIP'S WARRANTY LABOR RATE.
LABOR OPERATION NUMBER
NOTE: THE '0's ARE NUMBERS, NOT THE LETTER 'O'.
KIT PART NUMBER QUANTITY AND COST
PARTS TOTAL 8.67
LABOR TOTAL ??.00
ENTER SELECTION —
MODE ADD
F1-HELP F2-XPLN F3-HOW F4-PRT F5-ADD F6-BRS F7-CHG F8-CAN F9-SEL F10-RETN

NOTE: BE SURE TO CALCULATE THE LABOR AMOUNT USING YOUR DEALERSHIP'S ASSIGNED WARRANTY LABOR RATE. THE LABOR AMOUNT SHOWN IS FOR EXAMPLE PURPOSES ONLY.

# SAMPLE COMPLETED PAPER RECALL CLAIM

DEALER NAME AND ADDRESS

SAMPLE MITSUBISHI
CYPRESS, CA

## MITSUBISHI RECALL CLAIM

ID C

MITSUBISHI MOTOR SALES OF AMERICA, Inc.

| L | DEALER | CLAIM NO. | PG | A | REPAIR DATE MO | DY | YR | V.I.N. | DSM | SEQ. | PWA REASON CODES | MILEAGE | PW | RTN | FRT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 99999 | 54321 | 1 | | 04 | 22 | 89 | JA4GJ51SXKJ019123 | | | | 4102 | | | |

| L | PART NUMBER | PTS QTY | PARTS COSTS | SUB LET | LABOR OPERATION | LBR QTY | LBR HOURS | LABOR AMOUNT | REPAIR DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| A | MD153588 | 1 | 7.87 | | C8901J00 | 1 | .6 | ??.00 | |
| B | NPN | 1 | .80 | | | | | | |
| C | | | | | | | | | |
| D | | | | | | | | | |
| E | | | | | | | | | |
| F | | | | | | | | | |
| G | | | | | | | | | |
| H | | | | | | | | | |

RECALL CLAIM

THE LABOR AMOUNT WILL VARY DEPENDING ON THE DEALERSHIP'S WARRANTY LABOR RATE

SUBLET:

DELIVERY DATE: 12/12/88

R.O. NUMBER: R73166

DEALER SIG:

DSM NOTE:

MMSA COMMENTS:

APPEAL INFORMATION:

| | |
|---|---|
| PARTS TOTAL AT DLR NET | 8.67 |
| LABOR TOTALS | ??.00 |
| PARTS W/MKUP INCLUDE 25% MKUP | 10.84 |
| SUBLET | |
| TOTAL CLAIM | ??.00 |

Owner Name and Address

| | |
|---|---|
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MITSUBISHI MOTOR SALES OF AMERICA

IMPORTANT SAFETY RECALL NOTICE March, 1989

Dear Mitsubishi Montero Owner,

Mitsubishi Motor Sales of America, Inc. has announced a voluntary safety recall of your 1989, V6 Montero.

It has been determined that your vehicle may experience a stuck throttle when driving in temperatures colder than 10 degrees Fahrenheit. While driving under these conditions, it is possible that the throttle control valve will freeze and may not respond to changes in throttle position. This condition may prevent the engine from returning to idle and could result in an accident.

We strongly urge you to return your Montero to your authorized Mitsubishi Motors Dealer or Service Center for corrective action. A heat adaptor will be installed under the throttle body, which should eliminate the possibility of throttle valve freezing.

Please contact your dealer immediately to schedule an appointment for this modification. The modification should take approximately one hour to complete and will be done free-of-charge. Until your vehicle is modified, you should NOT drive it when the temperature is below 10 degrees Fahrenheit.

If you purchased your vehicle prior to February 1, 1989, you may have received a notification advising you to return your vehicle for a temporary modification that involved deactivating the exhaust gas recirculation system (EGR). Your dealer also may have deactivated the EGR system prior to your purchase. IF THE EGR SYSTEM ON YOUR VEHICLE WAS DEACTIVATED, YOU MUST RETURN TO YOUR AUTHORIZED MITSUBISHI MOTORS DEALER OR SERVICE CENTER TO HAVE THE SYSTEM REACTIVATED AND THE PERMANENT MODIFICATION COMPLETED.

Should your Dealer fail to perform the corrective procedure at no charge and within a reasonable time, please inform our Regional Consumer Relations Department by calling toll-free (800) 222-0037. You also may contact the Administrator, National Highway Traffic Safety Administration, Washington, D.C. 20590, or call the Auto Safety Hot Line toll-free (800) 424-9393; in Washington, D.C., call 366-0123.

We apologize for any inconvenience and appreciate your cooperation in having this modification completed as soon as possible. We have taken this action in the interest of your safety and continued satisfaction with our product.

Should you have any questions, please contact your Mitsubishi Motors Dealer, or our Regional Consumer Relations Department.

Sincerely,
MITSUBISHI MOTOR SALES OF AMERICA, INC.

George H. Croker
Manager, National Consumer Relations

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